



11-06-06

22 AF/1649

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Marian L. Kruzel

Serial No: 10/023,096

Filed: 12/18/2001

Title: Treating Compositions with  
Lactoferrin

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Art Unit 1649

Examiner:  
Gucker, Stephen.

Attorney Docket  
FDI004

**APPEAL BRIEF**

**Mail Stop Appeal Brief - Patents**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicant hereby files this Brief in response to the Office Action of  
10/20/06. The fee was paid with the Brief filed 04 May, 2006.

A notice of appeal was filed on 02/09/2006 in this Application.

The Summary of the Claimed Subject Matter has been amended a second  
time.

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**Real Party in Interest**

The real party in Interest is the inventor, Marian L. Kruzel.

**Related Appeals and Interferences**

Applicants are unaware of any related appeals or interferences.

**Status of Claims**

Originally filed claims: 1- 12  
Claims cancelled: 8-12  
Presently pending claims 1-7  
Presently appealed claims: 1-7

**Status of Amendments**

There are no outstanding amendments.

### **Summary of the Claimed Subject Matter**

It is necessary to give a brief history of the application to summarize the Claimed Subject Matter of this application.

This application was filed on **12/18/2001** with a **Preliminary Amendment to Declare an Interference with U.S. 6,172,040.**

Claim 1 as filed herein recited:

1. A method for reducing the microbial contamination of a meat product, comprising treating the meat product with a sufficient amount of lactoferrin to reduce microbial contamination.;

and this claim was identical with claim 1 in U.S. Serial No. 09/322,700 upon which U. S. 6,172,040 is based.

In an Office Communication mailed **06/15/2004**, Applicant was notified that: **"All claims are allowed"**. Further, "due to a potential interference prosecution is SUSPENDED FOR A PERIOD OF SIX MONTHS from the date of this letter."

The Examiner in this application then called the undersigned and stated that the allowance of the claims was being withdrawn. and no interference would be declared. This was confirmed by the undersigned in a fax dated **2/16/2005** and a Office Action mailed **2/17/2005**.

The Examiner withdrew the allowance of claims and made a first rejection of claims in an Office Action mailed **6/09/2005**.

A final rejection of the claims was mailed **1/31/2006**, now four years after filing the application.

The summary of claimed subject matter is defined by independent claims which recite:

1. A **method** for reducing the microbial contamination of a meat product [page 14, lines 7-8; page 34, claim 1, line 1], comprising **treating** [page 14, lines 7-8 and 11-12; page 34, claim 1, line 2] the meat product with a sufficient amount [page 14, lines 11-12; page 34, claim 1, line 2] of lactoferrin [page 14, lines 7-8] **selected** from the group consisting of bovine [page 14, line 24], human, and recombinant human [page 14, line 23] lactoferrin to reduce microbial contamination.

2. A method for reducing the microbial contamination of a meat product [page 14, lines 7-8; page 34, claim 2, line 1], comprising treating [page 14, lines 7-8 and 11-12; page 34, claim 2, line 2] the meat product with a sufficient amount [page 14, lines 11-12; page 34, claim 1, line 2] of **isolated** [page 14, line 24; page 34, claim 2, line 2 ] lactoferrin selected from the group consisting of bovine [page 14, line 24], human, and recombinant human [page 14, line 23] lactoferrin to reduce microbial contamination.

3. A method for reducing the microbial contamination of a meat product [page 14, lines 7-8; page 34, claim 3, line 1], comprising treating [page 14, lines 7-8 and 11-12; page 34, claim 3, line 2] the meat product with a sufficient amount [page 14, lines 11-12; page 34, claim 3, line 2] of lactoferrin selected from the

group consisting of bovine [page 14, line 24], human, and recombinant human lactoferrin [page 14, line 23] **mixed with a carrier** [page 14, line 3; page 34, claim 3, line 2] to reduce microbial contamination.

4. A method for reducing the microbial contamination of a meat product [page 14, lines 7-8; page 34, claim 4, line 1], comprising treating [page 14, lines 7-8 and 11-12; page 34, claim 4, line 2] the meat product with a sufficient amount [page 14, lines 11-12; page 34, claim 4, line 2] of lactoferrin selected from the group consisting of bovine [page 14, line 24], human, and recombinant human lactoferrin [page 14, line 23] **mixed with a nutritionally acceptable carrier** [page 14, line 4] to reduce microbial contamination.

5. A method for reducing the microbial contamination of a meat product [page 14, lines 7-8; page 34, claim 4, line 1], comprising treating [page 14, lines 7-8 and 11-12; page 34, claim 4, line 2] the meat product with a sufficient amount [page 14, lines 11-12; page 34, claim 4, line 2] of **isolated** [page 14, line 24; page 34, claim 2, line 2] lactoferrin selected from the group consisting of bovine [page 14, line 24], human, and recombinant human lactoferrin [page 14, line 23] **mixed with a nutritionally acceptable carrier** [page 14, line 4] to reduce microbial contamination.

## **Grounds of rejection to be Reviewed on Appeal**

**I. The Examiner fails to establish a *prima facie* case of obviousness in the following rejections.**

Claims 1-7 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Chander et al. ("Chander") in view of Dickson et al. ("Dickson") for reasons of record.

Claims 1-7 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Chander et al. ("Chander") in view of Stiles et al. ("Stiles") for reasons of record.

Claims 1-7 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Chander et al. ("Chander") in view of Ryser et al. ("Ryser") for reasons of record.

## **Argument**

### **I. The Examiner fails to establish a *prima facie* case of obviousness.**

The Examiner fails to establish that the combination of references shows the invention recited in Claim 1-7.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. **MPEP §2143**

### **Chander et al. article**

In each of the three rejections of Claims 1-7 over art, the Chander et al. article "Lactoferrin – Antibacterial Protein of Milk" is the primary or first reference.

Each of Claims 1-7 begin:

"A method for reducing the microbial contamination of a meat product, comprising treating the meat product..."

The Chander article makes **no reference** to **treating any** product. This is a technical article about lactoferrin. The conclusion of the article is: "...it is now evident that lactoferrin plays an important role in milk in controlling food poisoning, pathogenic and spoilage organisms of considerable importance." This role is not a part of **treating** milk but because of the natural existence of lactoferrin in milk. It is respectfully submitted that the article fails to disclose, suggest or motivate the treating of **any** product (meat is not even mentioned).

In each of the three rejections of Claims 1-7 over art, a separate article, namely, Dickson et al., Stiles et al., and Ryser et al. is proposed as a secondary reference to be combined with the Chander et al. article.

### **Dickson et al. article – "Cell Surface Charge Characteristics and Their Relationship to Bacterial Attachment to Meat Surfaces"**

The Dickson et al. article states: "The object of this study has as its objective the relationship between cell surface charge and bacterial attachment to meat surfaces." Contrary to the Examiner's statement that certain bacteria **"do contaminate meat surfaces"**, upon examination of the article at most it can be said that by the **Attachment experiments** that certain bacteria that were



mixed with aseptic strips of lean beef muscle or fat tissue resulted in the attachment of the bacteria. That disclosure is not a disclosure that these bacteria are normal contaminants of meat. There is **nothing** in this article that involves the **treating of the meat** to reduce microbial contamination of any bacteria.

It is respectfully submitted that since the Chander et al. article and the Dickson et al. article fail to disclose **treating of the meat**, the proposed combination of these two references is an erroneous piecemeal reconstruction of the cited articles that fail to establish a *prima facie* case of obviousness and the rejection of claim 1-7 is respectfully in error. As stated in *In re Oetiker*, 977 F. 2d 1443, 1447 (Fed. Cir. 1992): "There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself."

**Stiles et al. – *Enterobacteriaceae* Associated with Meats and Meat Handling**

The Stiles et al. article states on page 867, column 2: "The significance of these organisms in retail meats could not be determined. Hence, our objective was to study *Enterobacteriaceae* at different stages of the meat-processing chain to determine whether any associations could be made between bacteria isolates and stage in the meat handling process." There is **nothing** in this article that involves the **treating of the meat** to reduce microbial contamination.

It is respectfully submitted that since the Chander article and the Dickson article fail to disclose **treating of the meat** that the proposed combination of these two references is an erroneous reconstruction of the cited articles that fail to establish a *prima facie* case of obviousness and the rejection of claim 1-7

under 35 U.S.C. § 103 (a) as being unpatentable over Chander in view of Stiles et al. is respectfully in error.

Furthermore, the treatment of the meat to reduce microbial contamination would destroy the stated purpose of the Stiles et al. article. See the stated purpose of Stiles et al. above. If the meat was **treated to destroy microbial contamination at any stage in the meat processing chain** then Stiles would have found no evidence of bacteria at various stages or on equipment. References are not properly combinable or modifiable if their intended function is destroyed:

If a prior art reference is cited that requires some modification in order to meet the claimed invention or requires some modification in order to be properly combined with another reference and such modification destroys the purpose or function of the invention disclosed in the reference, one of ordinary skill in the art would not have found a reason to make the claimed modification. See *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

**Ryser et al. – “New” food- borne pathogens of public health significance**

The Ryser et al. article is a survey of recent work by epidemiologists and microbiologists that uncovered several hitherto unrecognized food-borne pathogens of public health significance. However, there is **nothing** in this article that involves the **treating of products and especially meat** to reduce microbial contamination.

It is respectfully submitted that since the Chander et al. article and the Ryser et al. article fail to disclose **treating of the meat**, accordingly the proposed combination of these two references is completely unwarranted.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

It is respectfully submitted that the holding above is applicable to all three rejections over art since **the reasonable expectation of success is not** found in the prior art. The Examiner in all three rejections having failed to find any reasonable support in the art cited, attempts to make an unwarranted and unfounded conclusion based on "The economic and public health desire..." where the Examiner arrives at the conclusion that the claims are *prima facie* obvious. This statement is clearly in error since it is made without any evidence, any reference or patent to support the conclusion and is a naked subjective assertion. For this reason the rejection made on this conclusion is in error and the rejection should be withdrawn.

The Examiner has failed to establish a *prima facie* case of obviousness. 35 USC § 102 states: "**A person shall be entitled to a patent unless** – ", accordingly, the burden is on the Examiner to establish that the applicant is not entitled under the law to a patent. This burden has not been met. Claims 1-7 should be allowed and such action is respectfully requested.

For the reasons stated above, applicant respectfully submits that the rejections of claims 1-7 should be reversed. Claims 1-7 should be allowed and such action is respectfully requested.

## **Claims Appendix**

1. A method for reducing the microbial contamination of a meat product, comprising treating the meat product with a sufficient amount of lactoferrin selected from the group consisting of bovine, human, and recombinant human lactoferrin to reduce microbial contamination.
2. A method for reducing the microbial contamination of a meat product, comprising treating the meat product with a sufficient amount of isolated lactoferrin selected from the group consisting of bovine, human, and recombinant human lactoferrin to reduce microbial contamination.
3. A method for reducing the microbial contamination of a meat product, comprising treating the meat product with a sufficient amount of lactoferrin selected from the group consisting of bovine, human, and recombinant human lactoferrin mixed with a carrier to reduce microbial contamination.
4. A method for reducing the microbial contamination of a meat product, comprising treating the meat product with a sufficient amount of lactoferrin selected from the group consisting of bovine, human, and recombinant human lactoferrin mixed with a nutritionally acceptable carrier to reduce microbial contamination.
5. A method for reducing the microbial contamination of a meat product, comprising treating the meat product with a sufficient amount of isolated lactoferrin selected from the group consisting of bovine,

human, and recombinant human lactoferrin mixed with a nutritionally acceptable carrier to reduce microbial contamination.

6. A method in accordance with claim 1, wherein said lactoferrin is a recombinantly produced lactoferrin.

7. A method in accordance with claim 3, wherein said lactoferrin is a recombinantly produced lactoferrin.

**Evidence Appendix**

None

**Related Proceedings Appendix**

None

The appeal brief fee was submitted earlier with the brief filed 05/04/06.

Respectfully submitted.



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CERTIFICATE OF MAILING

I hereby certify that this Appeal Brief is being deposited with the U.S. Postal Service as Express Mail (EV 972402581 US) in an envelope addressed to: Mail Stop Appeal Brief – Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA. 22313-1450 on November 3, 2006.



Kurt S. Myers